

# PRO | EDGE Video Streamer Recorder (VSR) User Guide

# User Guide

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## Introduction

The I-O PRO|EDGE® VSR is designed to be an affordable solution to allow **Standard Definition** (640X480 and 320X240) streaming and recording of various events.

Based on the **Windows XP® (XPe) Embedded Operating System**, the VSR utilizes **Windows® Media Encoder 9** to encode, stream, and record captured video and audio. The XPe Operating System and associated program files all reside on a 2GB Flash Drive. The 250GB Internal Hard Drive is reserved solely for recorded media files. Should the hard drive become full or fail, the VSR will continue to operate as it boots from the flash drive.

Through **Profiles** created via the VSR's browser-based **Profile Manager**, an operator can choose to stream and/or record at various bit rates and resolutions. To access the Profile Manager Interface, see page 9 of this Users Guide.

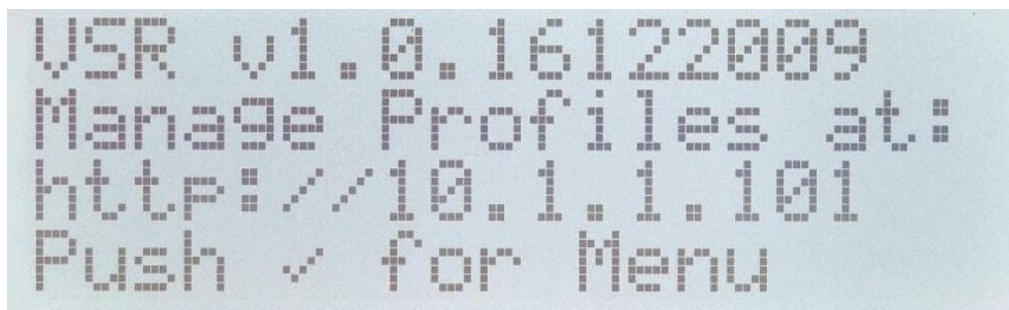
Once the VSR Profiles are created, all functions can be performed via the LCD Front Panel Interface. However, advanced users who desire higher resolutions and bit rates may attach a monitor, keyboard, and mouse to the VSR and manually run Windows® Media Encoder 9. (Advanced Users see page 21)

## Getting Started

Prior to connecting video and audio to the I-O **PRO**EDGE® VSR, network connectivity must be configured and the streaming and/or recording profiles must be created.

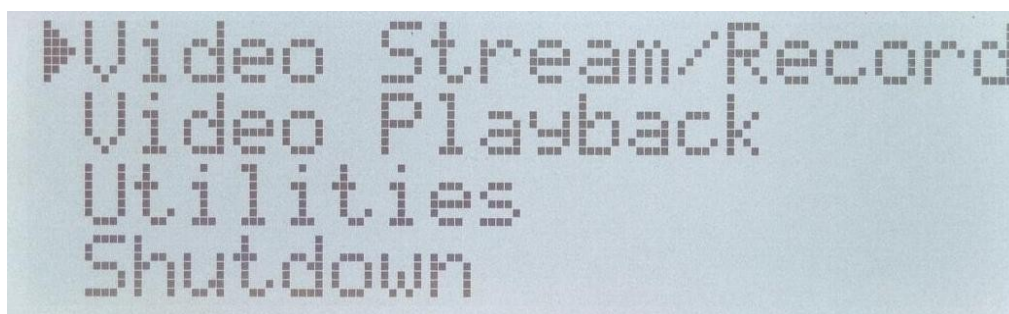
1. Plug a network cable into the VSR's RJ45 Network Port on the back of the VSR.
2. Plug the power adapter into the back of the VSR
3. Power on the VSR by pressing the silver power button on the front of the VSR. A blue LED light will illuminate the power button. Should a blue LED not illuminate, check all power connectivity.

After the unit is booted and operational, the front LCD Panel will appear as shown in LCD Figure 001 below.



*LCD Figure 001*

After making note of the IP Address, press the green check button to view the Main Menu:



*LCD Figure 002*

# Configuring Network

The VSR operates virtually identical to a standard Windows XP-based networked workstation. Factory Default settings for the network adapter is set to obtain it's IP Address automatically from the local network via DHCP.

When the VSR initially boots, it will show its IP Address on the third line of the initial LCD screen. If no IP Address is assigned, either automatically or static, the third line will be blank and the "Network" LED light on the front panel will be red.

If a **Static IP Address** needs to be assigned, then a network administrator would connect to the VSR either manually or via RDP (Remote Desktop Session).

**Manual Connection:** To connect to the VSR manually, simply connect a monitor, keyboard, and mouse to the VSR and configure its Static IP Address like any other workstation on their network.

**Remote Desktop Connection:** If the VSR is already connected to a network with a valid IP Address, an Administrator can connect to it via a standard Remote Desktop Client. The login credentials for the VSR Desktop is:

Username = **stream**

Password = **ProEdge** (case sensitive with Capital "P" and "E")

Once connected to the XPe Desktop of the VSR, an Administrator may configure the Network as desired through the Network Connections area of the Control Panel.

# Streaming and Recording Profiles

The **Streaming and Recording Profiles** define how the VSR operates during an encoding session. The profiles define the following:

1. **Video and Audio Quality**
  - Low = 150 kbps
  - Medium = 450 kbps
  - High = 750 kbps
2. **Video Size**
  - 640 X 480
  - 320 X 240
3. **Recorded File Format**
  - Windows Media Video (.wmv)
  - Flash Video File (.flv)
4. **Streaming Format**
  - Windows Media Server
  - Flash Streaming Server
5. **Streaming Destination**
  - Push Stream to Server
  - Stream Directly From VSR (not recommended if more than 5 viewers are watching the stream)
6. **Video Input Format**
  - Composite Video
  - S-Video

Profiles can be created where a session can be streamed and recorded at the same time. For example, a profile can be set to record to a local file, stream to a Windows Media Server, and allow streams to be pulled from the device.

**NOTE: The format and quality of the stream and recorded files must match.** For example, one cannot simultaneously stream at a Low Quality 320 X 240 resolution and record at a High Quality 640 X 480 resolution. Also, one cannot simultaneously stream to a Windows Media Server and record in a Flash Video (.flv) format.

## Factory Default Profiles

From the factory, three(3) profiles have been created on the VSR. Each profile may be viewed, modified, and deleted. They have been provided as working examples so the VSR can be functional right out of the box..

These profiles are as follows:

1. **RecordOnly:** This profile *does not require a network connection* as it is not streaming and it creates a .wmv date/time stamped file onto the internal hard drive. This profile is set to record at High Quality and at 640X480 resolution.
2. **DeviceStream:** This profile *does require a network connection*. In the absence of a streaming server, the VSR itself can act as the streaming server. Viewers must have access to the same network to which the VSR is connected. For example, by using the sample IP Address shown in LCD Figure 001, one would view the stream by opening up a Windows Media Player on a remote machine and open the following URL: <http://10.1.1.101:8080> (**Make special note of port 8080**) This profile is set to broadcast at Medium Quality at 640 X 480 resolution.
3. **InternetStream:** This profile is not complete. It is a template that requires both a network connection and valid credentials for either a Windows Streaming Server or a Flash Media Server. It is currently set to broadcast at Medium Quality at 640 X 480 resolution.

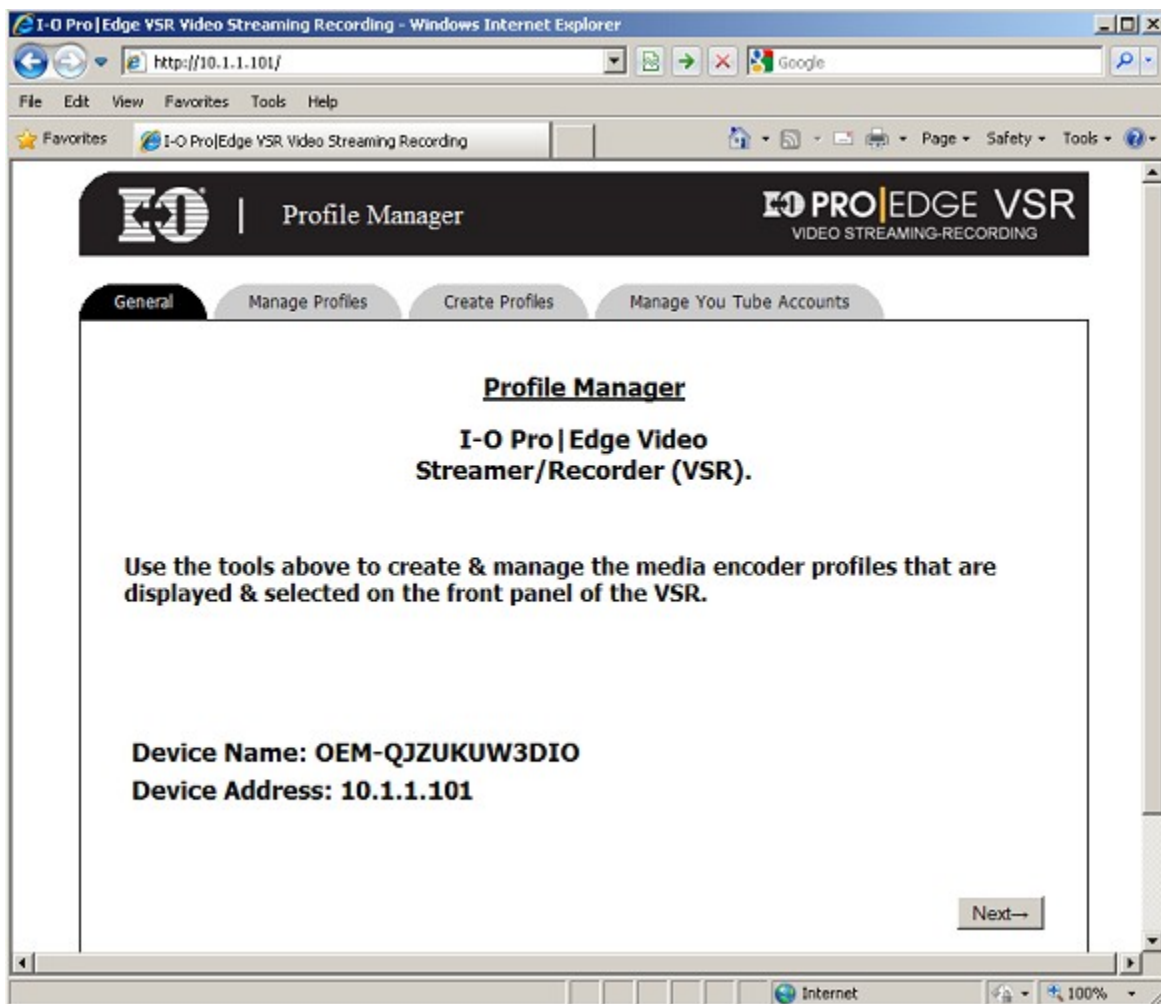


# Profile Manager

Profiles are managed via the VSR's browser-based Profile Manager which can be accessed by:

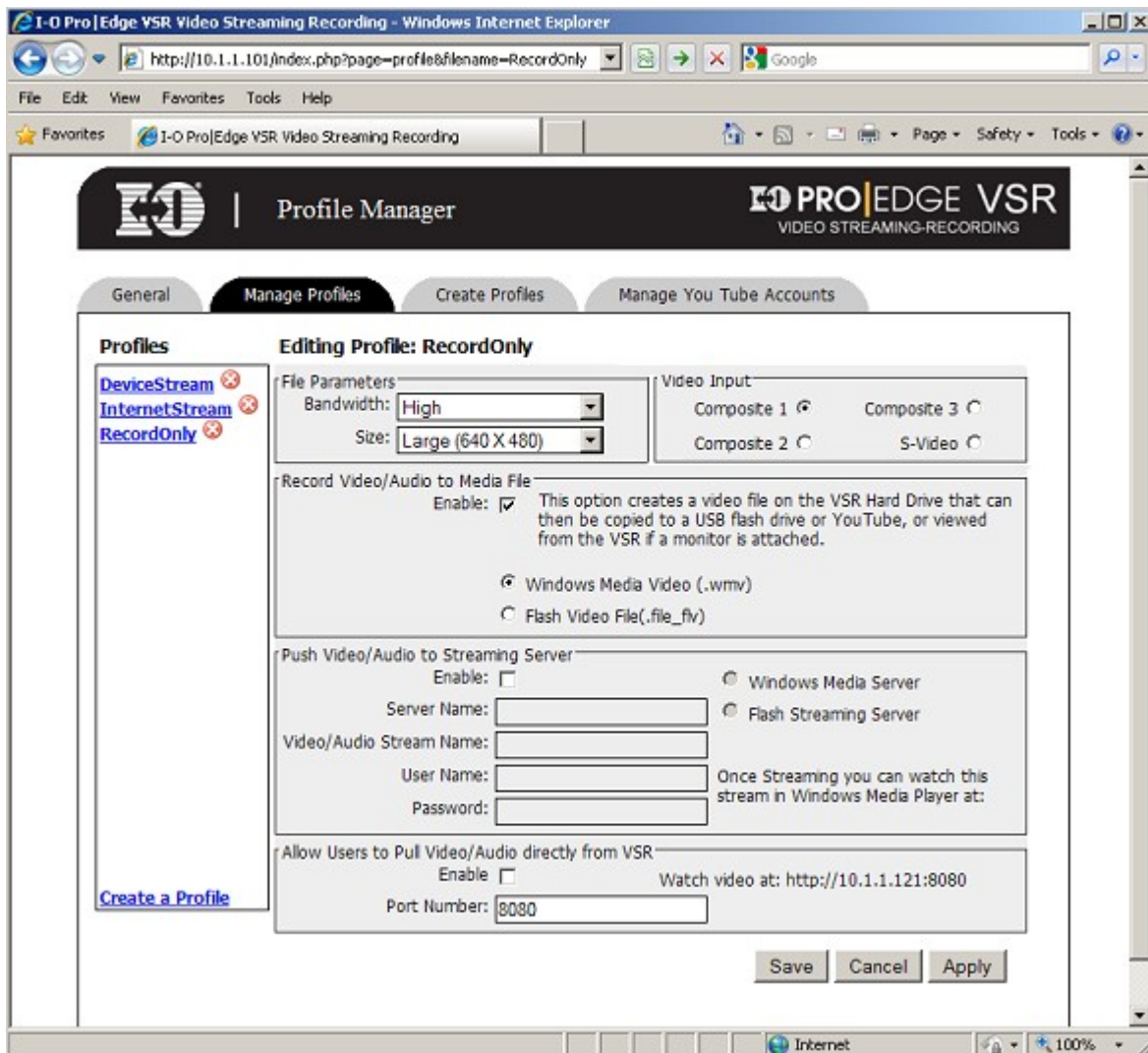
- 1) Remotely access the VSR by typing it's IP address into a browser's address bar (i.e. <http://10.1.1.101/>), or
- 2) Locally connecting a monitor, keyboard, and mouse to the VSR and running Internet Explorer and typing <http://localhost> into the address bar.

Upon successfully connecting to the Profile Manager, you will see the following screen in the browser:



# Managing Profiles

Once connected to the Profile Manager, select the 'Manage Profiles' tab to edit and delete current profiles or select the 'Create Profile' tab to create a new profile. Upon selecting a profile to manage, the following screen will be displayed:



The programming behind this screen prevents the mixing of different formats (Windows Media and Flash). When pushing the Video and Audio to a Windows Media or Flash Streaming Server, verify the server address and login credentials before entering into the Profile Manager.

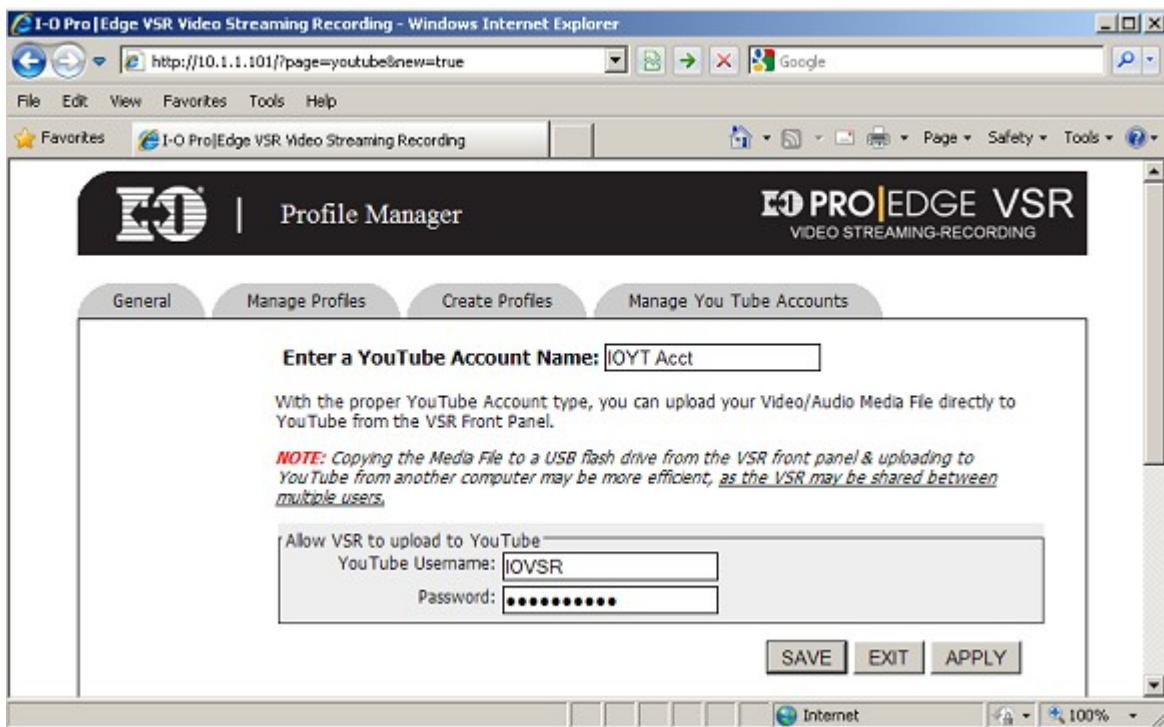
# Managing YouTube® Accounts

After a Windows Media or Flash Video has been recorded to the VSR hard Drive, that video can be directly uploaded from the VSR to YouTube®.

The requirements for a successful upload are:

1. A valid YouTube® Username and Password. Please note that videos longer than 10 minutes will require a paid subscription to YouTube®.
2. A good connection to the Internet without Firewall blocks. As some corporate network polices prevent access to YouTube®, firewall rules will prevent one from uploading videos to YouTube.

Select the “Manage YouTube Accounts” tab in the Profile Manager to create the YouTube upload profiles:



Multiple YouTube profiles can be created. For Example, if the VSR is being used in an educational setting, each instructor may setup their own YouTube Profile on the VSR. This would allow the instructor to upload their own lecture to the proper YouTube Account.

## Connecting Video and Audio

Prior to streaming and/or recording, one must connect an active video and audio source.

**VIDEO:** The VSR has 3 composite video inputs and 1 s-video input. Each can be used, though not simultaneously. The VSR software is setup only to stream and record from one of the four inputs at a time. The port that is used is determined by the “Video Input” option selected when creating a profile in the Profile Manager.

With the current version Windows Media Encoder and the VSR Software, switching between different inputs during an encoding session is not possible.

When creating a profile in the Profile Manager, the default video connection is the Composite 1 input port.

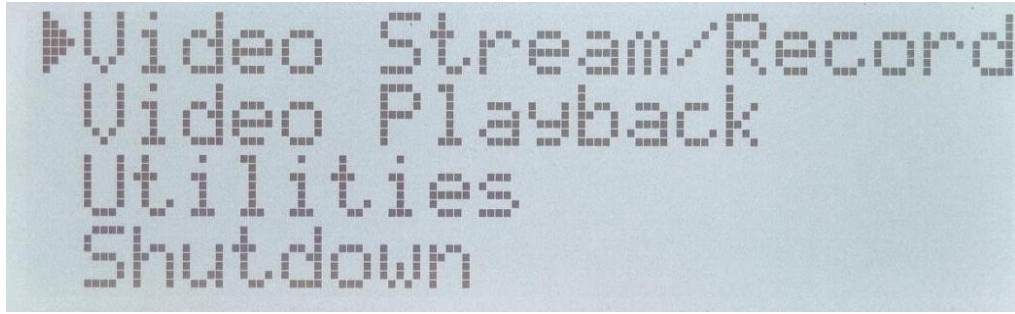
**AUDIO:** When connecting the audio source to the VSR, use the blue “Audio Line IN” port. This is the port typically used when receiving an audio feed from an external source.

***IMPORTANT: To prevent damage to the internal audio components on the motherboard, DO NOT plug an amplified signal into the VSR Audio Line In Port. As with any PC device, plugging an amplified signal into a standard PC Line in Port will cause damage. I-O Corporation strongly recommends utilizing an external audio mixer and then feeding the audio signal into the blue “Audio Line IN” port.***

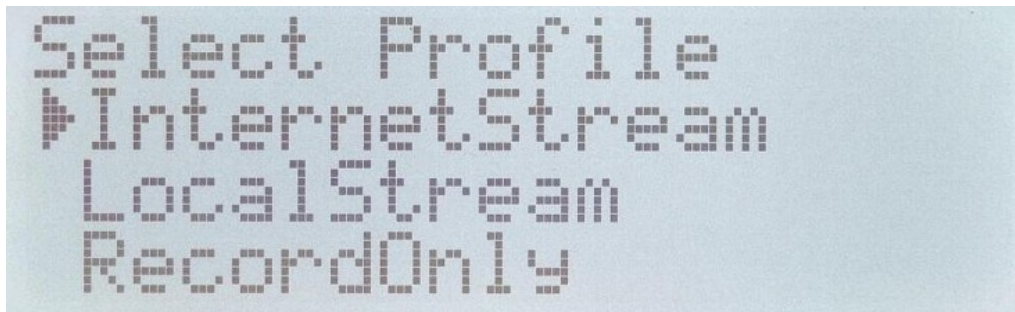
## Streaming and Recording

After successfully configuring the network connection, creating profiles in the Profile Manager, and connecting the proper video and audio sources, the VSR can be completely operated via the front panel LCD interface.

1. Select “Video Stream/Record” from Main Menu



2. Select a previously configured profile.

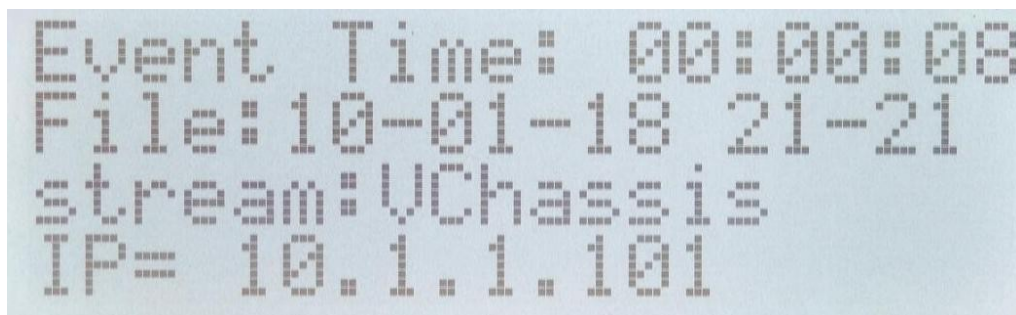


The settings in the individual profiles will determine whether the VSR is “pushing” a stream to a streaming server, recording a video file to the hard drive, or allowing streams to be “pulled” directly from the VSR. LCD Figure 003 in the next section shows the status screen during a successful Video Streaming session.

## Recorded File Names

When the record option has been selected in a profile, the file name that will be written to the VSR hard drive will be displayed on the LCD Screen. The filename will correspond to the date and time the recording began. For example, LCD Figure 003 indicates that the recorded file was made on January 18, 2010 @ 9:21 pm.

This is the filename that will be displayed when deleting files, copying files to a USB stick, viewing a video in playback mode, or uploading files to YouTube via the front panel.



*LCD Figure 003*

## Stream Names

When pushing a stream to a Windows Media Server, the status screen will indicate the name of that stream. For example, if the stream being shown in LCD Figure 003 above had been configured to push to stream.iocorp.com, then users on the Internet could watch the stream by starting Windows Media Player and opening up the URL:

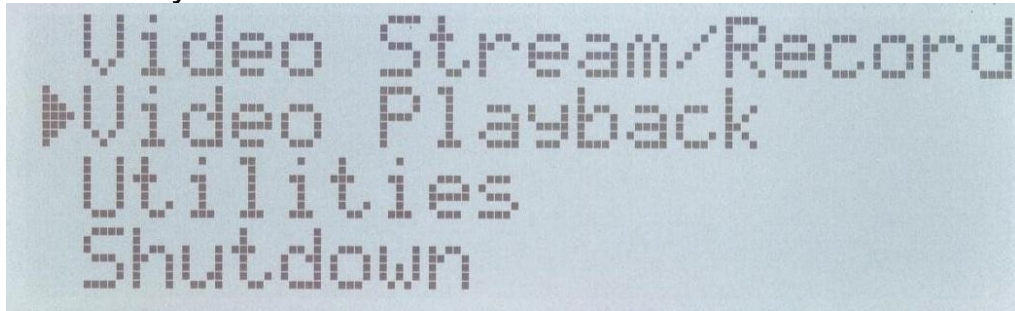
<http://stream.iocorp.com/VChassis>

## Video Playback

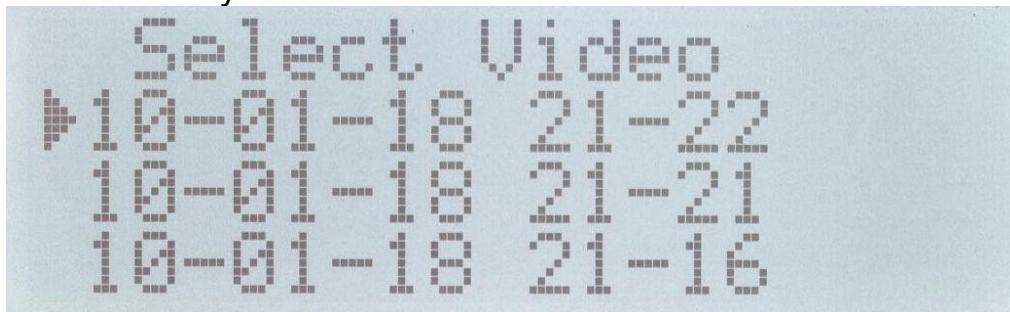
The Video Playback option on the Main Menu is only available if an external VGA monitor and speakers have been connected to the VSR. Without an external VGA monitor, one would either have to copy a video to a USB drive and watch it on another computer, or upload it to YouTube for viewing.

To view one of the recorded videos on the VSR:

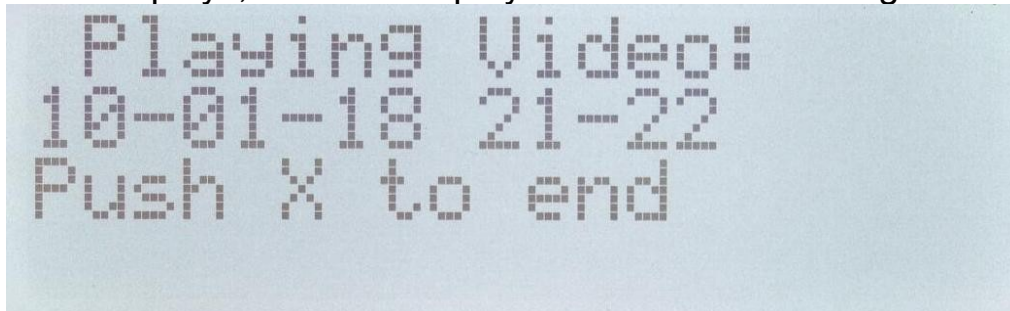
1. Select "Video Playback" from the Main Menu



2. Select the video file you want to view



3. The video will then play on the attached VGA monitor in Windows Media Player. While the video plays, the LCD display will show the following:



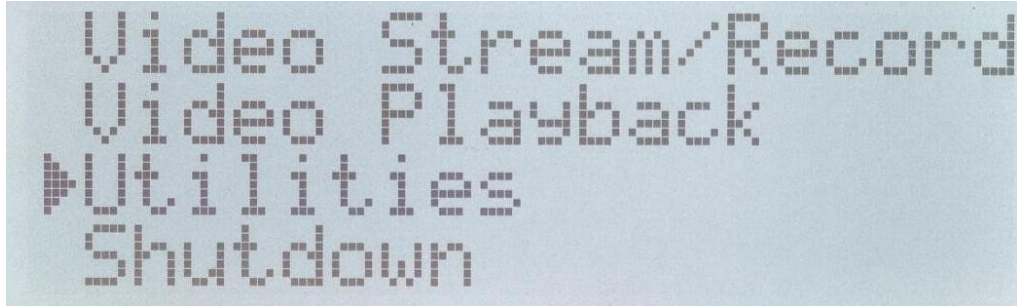
To stop the playback of a video, simply press the red X button on the front of the VSR.

## Copying Video Files to USB Drive

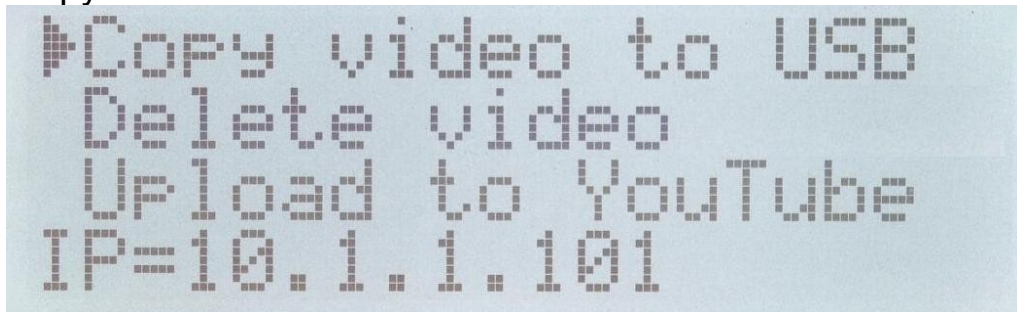
Any recorded video on the local VSR hard drive can be copied to a users external USB thumb drive.

To copy one of the recorded video files to a USB drive:

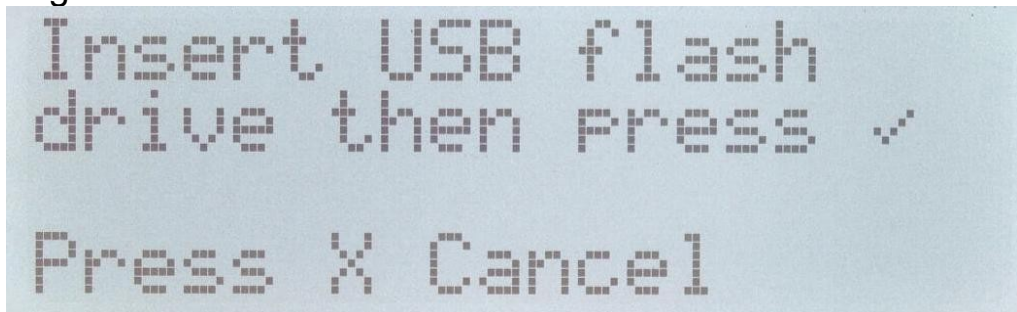
1. Select "Utilities" from the Main Menu



2. Select "Copy Video to USB"

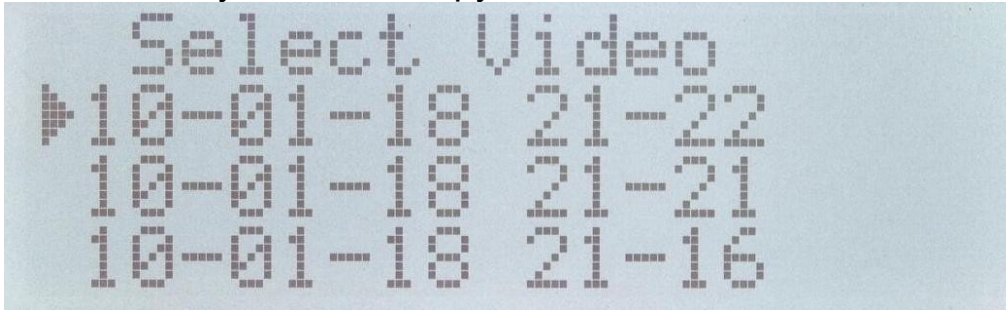


3. Insert the USB drive into the front of the USB port on the front of the VSR and press the green check button

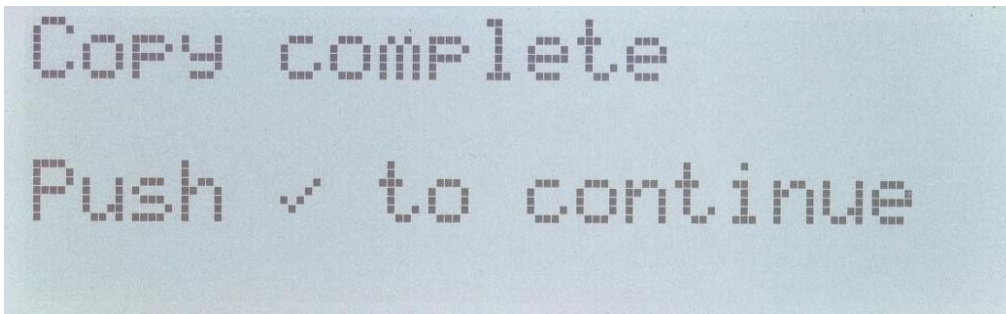




4. Select the video file you wish to copy to the USB



5. LCD Display will indicate when copy procedure is complete. Press the green check button to return to the Main Menu.

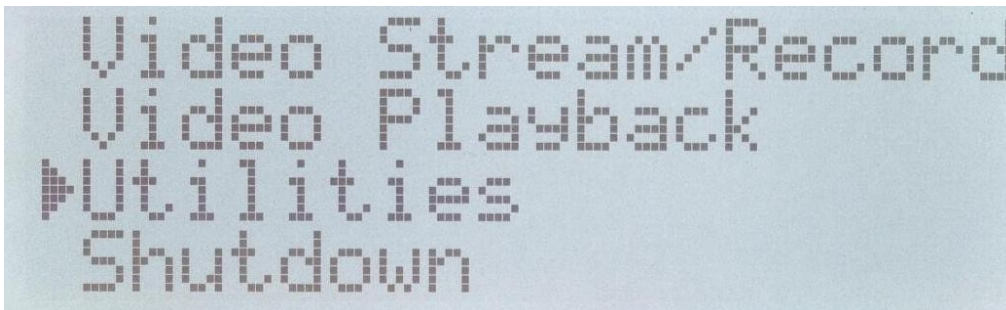


## Deleting Recorded Video Files

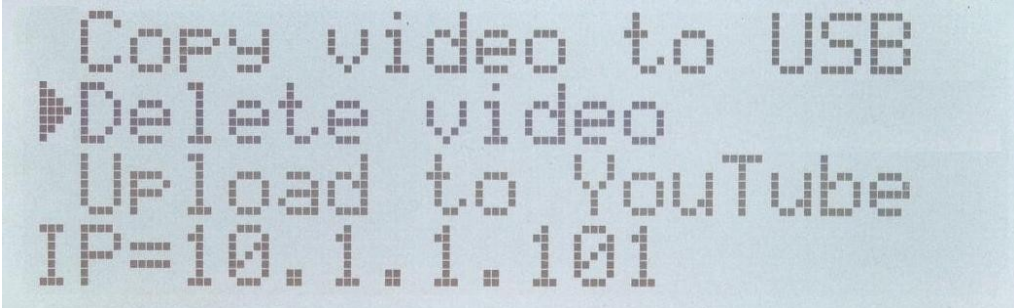
If connected to the VSR's desktop either manually or via RDP (see page 6), the recorded video files can be deleted off of the VSR's internal hard drive like any other file.

To delete the videos via the LCD front panel:

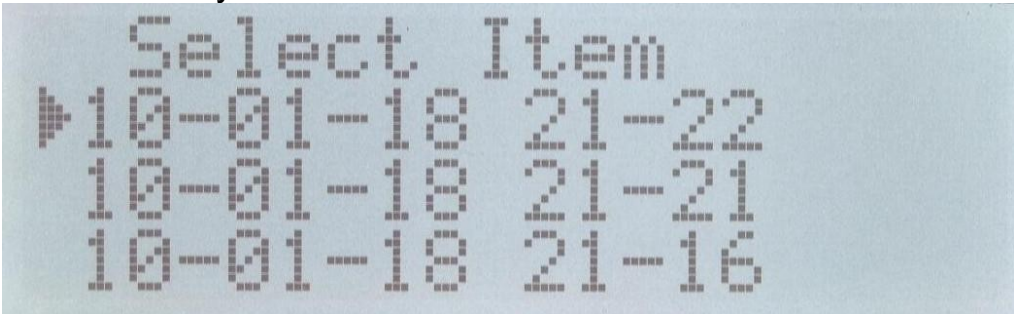
1. Select "Utilities" from the Main Menu



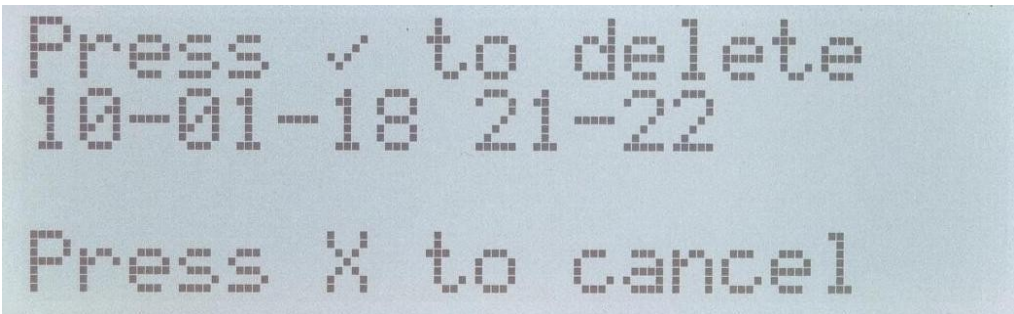
2. Select "Delete Video"



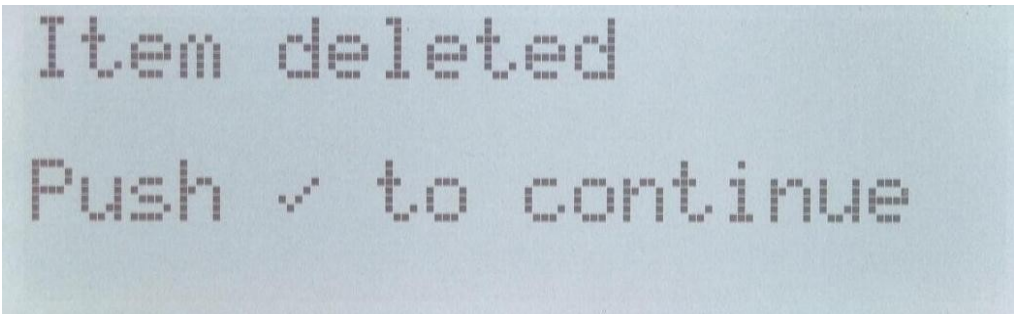
3. Select the video file you wish to delete



4. Verify the video filename you wish to delete and press the green check button to confirm deletion



5. A confirmation message will appear. Press the green check button to return to the delete video menu

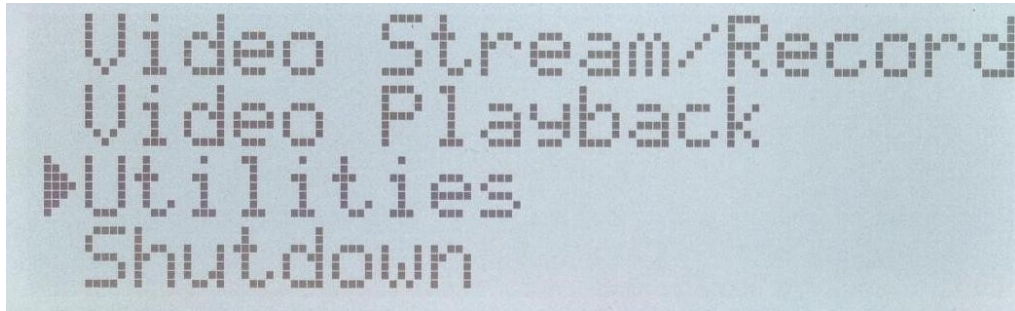


## Uploading Video Files to YouTube®

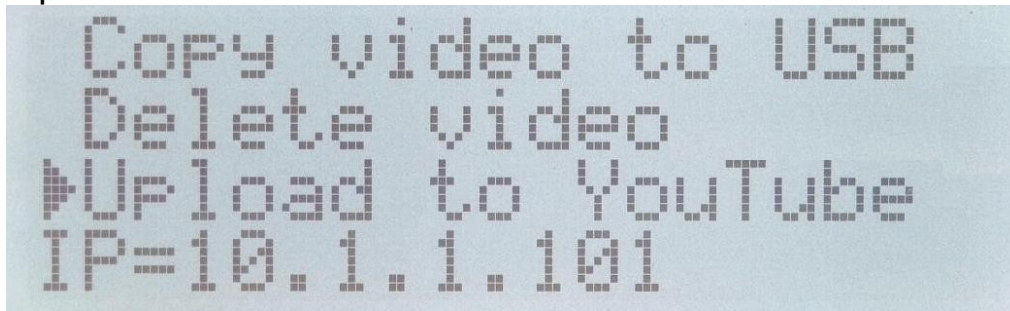
Before uploading a video file directly from the VSR to YouTube, at least one YouTube Profile must be created. (See section labeled “Managing YouTube® Accounts”)

To upload a Windows Media or Flash video file to YouTube:

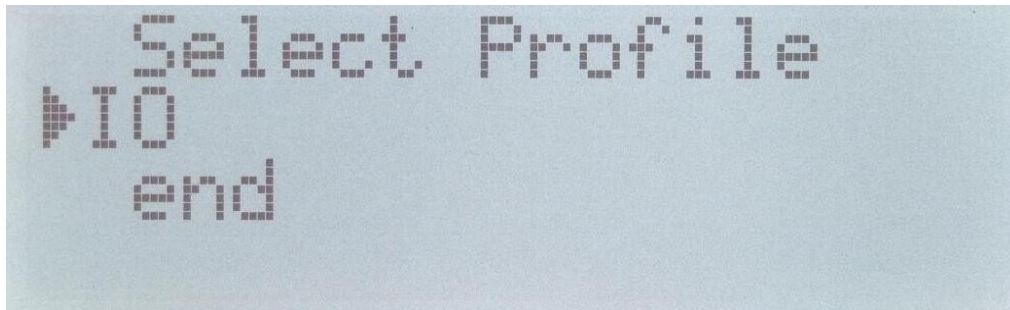
1. Select “Utilities” from the Main Menu



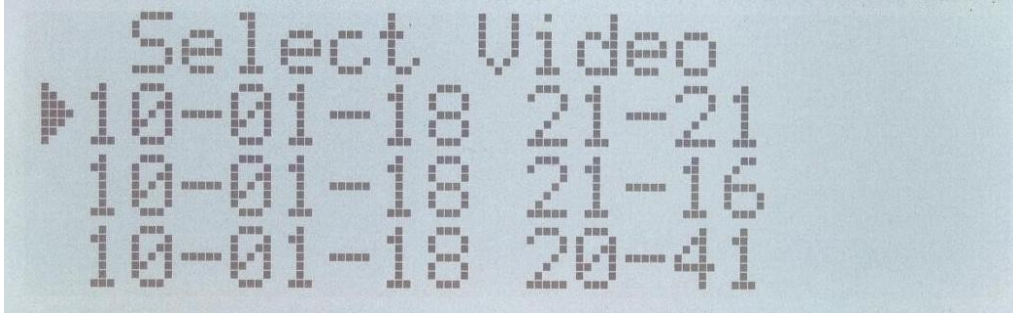
2. Select “Upload to YouTube”



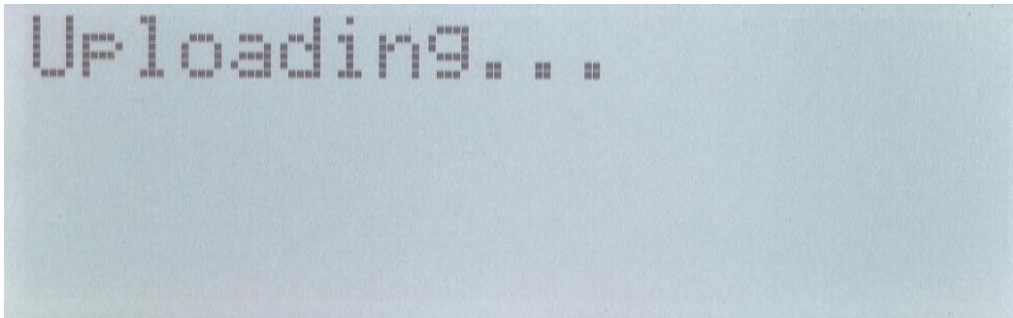
3. Select the appropriate YouTube Profile previously configured in the Profile Manager



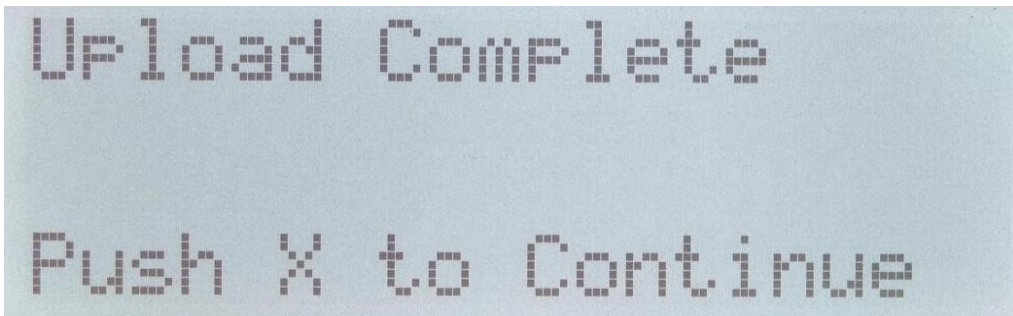
4. Select the Video File you wish to upload



5. Uploading may take a significant amount of time depending on the size of your video and the YouTube credentials. *NOTE: If you do not see the screen below and an error message is displayed, either there is a Network Connectivity problem, a firewall rule blocking access to YouTube, or the YouTube credentials in the Profile are not valid.*



6. A successful "Upload Complete" message will be displayed. Press the red X button to return to the Main Menu



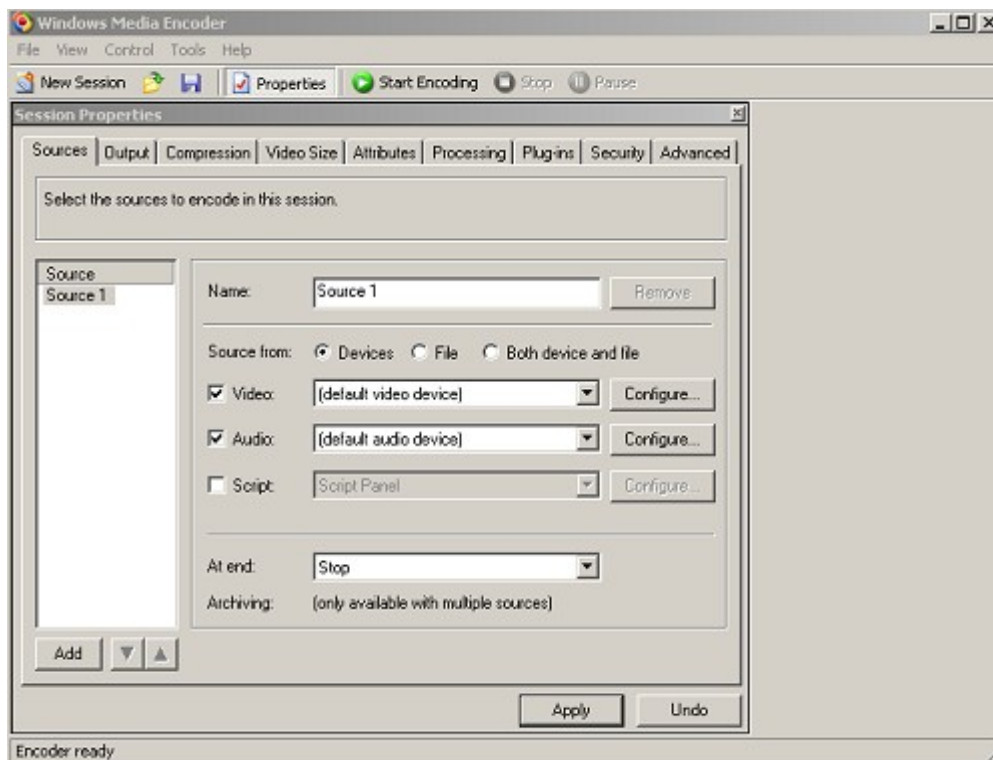
## Advanced Users

Windows Media Encoder 9 provides more encoding options than are available via the VSR Software and front LCD Panel.

The I-O **PRO**EDGE® VSR was built so the novice user could produce an Internet Stream with simple interaction via the front LCD panel.

If one is an Advanced user and wants to take advantage of all the encoding options provided in Windows Media Encoder, take the following steps:

1. Connect an external monitor, keyboard and mouse to the VSR
2. Close the VSR Software program that controls Windows Media Encoder from the Front Panel. This is accomplished by closing the program showing on the taskbar labeled "Do Not Close". This disables all VSR functions and allows an advanced user to operate the VSR like a normal XP-based PC.
3. Start Windows Media Encoder Manually by pressing Start....All Programs....Windows Media....Windows Media Encoder
4. For information on running Windows Media Encoder visit [www.Microsoft.com](http://www.Microsoft.com)



# Manufacturer's Warranty & Repair Policy

## Manufacturer's One Year Limited Warranty

(United States)

The following warranty applies only to products purchased and operated within the United States.

I-O Corporation (I-O) warrants this product against defects in material and workmanship for a period of one year commencing from date of purchase by the original customer, when operated and maintained in accordance with I-O's published specifications. I-O's liability shall be limited, at its option and expense, to refund to buyer the actual amount paid by buyer or to repair or replace any defective or nonconforming product or part thereof, F.O.B. I-O's authorized repair depot. Buyer may obtain a replacement product by meeting the terms of the I-O Customer On-Site Exchange Repair Policy in effect at the time of the request.

THE EXPRESS WARRANTY SET FORTH ABOVE IS IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES. OTHERWISE, THE PRODUCTS ARE SOLD AS IS WITHOUT FURTHER OBLIGATION OR LIABILITY ON THE PART OF I-O. I-O EXPRESSLY EXCLUDES ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

EXCEPT AS EXPRESSLY SET FORTH HEREIN, IN NO EVENT SHALL I-O BE LIABLE FOR ANY CLAIMS OR DAMAGE ARISING DIRECTLY OR INDIRECTLY FROM THE FURNISHING OR FAILURE TO FURNISH PRODUCTS, SPARE OR REPLACEMENT PARTS, INFORMATION OR SERVICES HEREUNDER. UNDER NO CIRCUMSTANCES SHALL I-O BE LIABLE IN ANY WAY FOR INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO LOST BUSINESS OR PROFITS, WHETHER OR NOT FORESEEABLE AND WHETHER OR NOT BASED ON BREACH OF WARRANTY, CONTRACT, OR NEGLIGENCE.

I-O shall not be liable for non-performance or delays hereunder due to causes beyond its control. These shall include, but not be limited to, acts of God, wars, strikes, fires, flood, storm, earthquake, shortages of labor or materials, labor disputes, transportation embargoes, acts of any government or agency thereof.

MODIFICATIONS OR RECONFIGURATION OF THE HARDWARE BY ANYONE OTHER THAN I-O OR I-O'S AUTHORIZED REPAIR FACILITY WILL VOID THIS HARDWARE WARRANTY.

# Customer On-Site Exchange Repair Policy

Terms, Conditions, and Limitations

For products covered by the I-O Corporation (I-O) Manufacturer's Limited Warranty (United States), I-O's Customer On-Site Exchange (COE) Repair Policy provides customers with a replacement unit for a defective product, subject to the following terms and conditions

## **Call Customer Support**

If a product fails, call I-O Customer Support for assistance at (801) 972-1446.

## **Verify Product Failure**

I-O will verify the product serial number, warranty coverage and product failure.

You are responsible for assisting in verifying the product failure.

When I-O Customer Support verifies a product failure they will issue a Return Merchandise Authorization (RMA) number for the failed product.

## **Replacement Units**

Replacement units are shipped from I-O's stock of refurbished units, subject to availability.

Replacement units carry the same warranty as remaining on the original product.

I-O's COE Repair Policy applies only to warranted product failures. Buyer guarantees payment for non-warranted product repairs or replacement.

Buyer will pay reasonable labor and handling charges for each product returned for repair which is found to have no defect.

## **Return Your Failed Unit**

When you return the failed product it must be shipped freight prepaid. Always note the RMA number on the outside of the package.

## **Install the Replacement Unit**

You are responsible for installing the replacement unit.

After receiving the replacement unit please call I-O Customer Support if any assistance is required.

I-O reserves the right to change the terms and conditions of this policy without notice.